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# COTTON IN PAKISTAN

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# COTTON IN PAKISTAN

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## SUMMARY AND CONCLUSIONS

Cotton and the history of Pakistan have been closely associated for at least 5,000 years, and there is nothing to suggest that this relationship will change for a long, long time to come. However, the history of commercial production of Upland, the type that constitutes the bulk of the world's production and more than 90 percent of the world's trade in cotton, goes back only 50 years. Nevertheless, during this relatively short period, Upland has gained such widespread acceptance as a suitable crop that it now accounts for 90 percent of the country's cotton output. Asiatic cotton native to the region still is produced in sizable quantities mostly for export, and because of a number of peculiar characteristics will continue to be produced. Any increase in production, however, will probably be in Upland varieties.

That cotton is important to the economy of Pakistan is amply demonstrated by the role given to this commodity in official economic development plans. Increases in production of both cotton and cotton textiles figured in the First and Second Five-Year Plans (1955-60 and 1960-65). Cotton, either as a raw product or as textiles, was to supply a sizable share of the foreign exchange earned during the Plan periods. Goals for textile output have been reached easily, but exports of textiles have lagged. Cotton production did not reach the objective in the First Plan. Production in 1962 reached the third year goal of the Second Plan only because of exceptionally good weather conditions. There is a possibility that production in 1964-65, the last year of the Second Plan, will not reach the 1.84 million-bale aim.

Numerous problems beset the expansion of cotton production in Pakistan. The economy of the country is such that each farmer must provide his own food and feedstuff before he can devote resources to cotton or any other cash crop. Credit supplies on reasonable terms are inadequate to the needs of farmers. The marketing system for cotton does not encourage expanded production. Cultural practices generally employed perpetuate low yields. Four-fifths of the farmers are illiterate, and this reduces the effectiveness of traditional extension efforts. Obviously, a tremendous potential exists for expanding current yields, which, because of many of the above factors, are now among the lowest in the world for a predominantly irrigated cotton area.

Cotton acreage may expand as new irrigation projects bring additional land under irrigation and as land reclamation projects are completed as well. Tending to offset cotton's chance for a claim on new land is the heavy pressure for larger food crop production from a rapidly expanding population.

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**Note:** All bales of cotton in this report are 480 pounds net weight unless otherwise specified. Generally, data have been converted from bales of 392 pounds net, the standard Pakistani bale.



This same population pressure, on the other hand, is reflected in an increasing market for textiles, and creates extremely favorable conditions for expanded textile production. Profits from textile investments have been so high that overexpansion of textile capacity looms as a possibility.

In the event that domestic cotton production is unable to meet the needs of the larger textile industry, competition for available supplies will develop, and this could force prices for cotton, relative to alternative crops, to such a level that production would be encouraged. This development is unlikely. In the past, the government has kept prices for locally consumed cotton fairly stable through a variable export levy. Without an export surplus, this price control mechanism would not work, but other alternatives could be developed if cotton prices increase much. Two factors point to government intervention in the cotton price structure if high prices should develop. Probably most important is the desire of the government to expand not only textile production but also textile exports. High-priced cotton would lessen the textile export potential. The second factor is the influence that industrial leaders have and use to get favorable treatment from the government.

An increase of around 50 percent in Upland cotton consumption over the next 3 or 4 years is in prospect if textile capacity reaches the oft-mentioned 3-million-spindle level. (Although capacity may not reach 3 million spindles, it is likely to increase sharply.) Production prospects, as pointed out earlier, are not such that the industry can count on supplies of domestically produced cotton adequate to meet increased demand. Consequently, export prospects for Upland cotton, good in 1962-63 because of the weather-enhanced crop in 1962, are poor for the next few years, and a need to import sizable quantities is possible. Production and exports of Desi cotton should continue, but in view of declining world consumption in the last few years, prices are not likely to stimulate expansion in acreage of this cotton.

In the event that sizable imports of Upland cotton become necessary to sustain activity in the textile industry, Pakistan will need either to greatly expand cotton purchases under Title I of Public Law 480 or to make foreign exchange available for cotton purchases. Obviously, Pakistan would prefer to use Public Law 480, and, within the framework of the law, the decision will rest with the United States as to the desirability of selling sizable quantities of Upland cotton to Pakistan.

## THE RAW COTTON INDUSTRY

### Acreage

Areas in Cotton.--Cotton is planted throughout most of the Indus River Basin of West Pakistan and in the Chittagong Hill Tracts of East Pakistan. All of the Upland cotton acreage, and over 90 percent of the Asiatic cotton acreage, is in West Pakistan. Acreage in East Pakistan accounts for less than two percent of each year's total.

In West Pakistan cotton is planted in small plots throughout the irrigated sections and a small acreage of Desi cotton is raingrown. The small plots, generally half an acre or less, are designed to facilitate irrigation, but they

could not be expanded greatly under present conditions because the average farm size is less than ten acres, with this acreage generally divided into small unconnected plots. In some cases various plots are separated by as much as a mile.

Types of Cotton Farms.--Few farms in Pakistan would fit the definition of a cotton farm as it is generally used in the United States. Generally, each Pakistani farmer produces wheat, oilseeds, grain sorghums, vegetables, sugarcane, cotton, and perhaps other crops. Water supplies available throughout the year are insufficient under present distribution methods to support much of a change in the ratio of winter and summer crops. However, at least a part of this problem could be overcome by revision of water distribution patterns and construction of water storage facilities. As the new generation of farmers gradually takes over farming operations, there are indications that economic decisions are playing an increasing role in decisions. This development, while indicative of improvement in farming practices, will be an extremely slow process.

The economy of Pakistan is such that each farmer must necessarily grow food for his family and feed for his livestock before devoting resources to a cash crop. Wheat is the basic food grain produced, and is used for payment of wages and for barter in the villages. Consequently, most farmers must have wheat acreage. For these same reasons, even the large-scale farmers are compelled to plant sizable acreages of the various crops each year.

Cotton acreage in Pakistan has varied considerably since 1947 between a low of 2.8 million acres in 1948 and a high of 3.6 million acres in 1957. In 1962 cotton acreage, at 3.4 million acres, was less than 10 percent above the 3.1 million acres planted in 1947, the year of partition from India. Following the establishment of Pakistan, cotton acreage dropped, mainly as a result of the mass exodus of Hindus to India and influx of Moslems from India. The switch in population disrupted cropping patterns, and cotton acreage did not reach prepartition levels until 1951.

Crop Competition for Land.--Within the limits of available water supplies and the required production of food and feed crops, prices for the various commodities play a fairly important role in relative acreage of the various crops planted each year. High cotton prices stimulated sharp expansions in acreage early in the Korean Crisis, but the mid-1952 break in prices was followed by a sizable acreage cutback in 1953. Wheat prices, however, rose quite sharply in 1953, especially at interior markets, and acreage rose from 9.5 million in 1952-53 to 10.5 million in 1953-54. Since 1950 cotton acreage has generally followed price movements but with a one-year lag. Wheat acreage during this period has trended upward, but this reflects primarily additional land coming under cultivation. Some cotton is going into newly-cultivated land, but some older land is going out of cotton, whereas food crop acreage in older farming areas is being maintained.

Currently, there are around 30 million acres of land sown to principal crops produced in West Pakistan, and this area is increasing. In 1950-54 the area planted to these crops averaged 25 million acres annually, and in 1955-59 averaged another 3 million acres. In addition, around 2 million acres of land are used annually for such crops as fruits, vegetables, and spices. Most of the

Table 1.--COTTON IN RELATION TO OTHER PRINCIPAL CROPS:<sup>1</sup> West Pakistan, acreage, average 1950-54 and 1955-59, annual 1950-61

Year <sup>2</sup>	Cotton	Wheat	Rice	Other grains	Chick-peas	Rape-seed	Sugar-cane	Tobacco	Total
	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres
Average:									
1950-1954.....	3.15	10.27	2.34	5.01	2.50	1.18	0.61	0.06	25.12
1955-1959.....	3.44	11.63	2.65	4.83	3.05	1.41	.90	.09	28.00
Annual:									
1950.....	3.02	10.80	2.39	5.03	2.76	1.14	.47	.05	25.66
1951.....	3.32	10.15	2.18	4.54	2.11	1.37	.48	.05	24.20
1952.....	3.42	9.43	2.24	4.99	2.03	1.05	.63	.04	23.83
1953.....	2.87	10.42	2.51	5.67	2.56	1.08	.72	.06	25.89
1954.....	3.14	10.53	2.37	4.83	3.05	1.28	.75	.11	26.06
1955.....	3.48	11.17	2.40	5.04	3.25	1.47	.71	.08	27.60
1956.....	3.56	11.59	2.40	5.17	3.16	1.36	.79	.07	28.10
1957.....	3.59	11.39	2.65	4.36	3.00	1.35	.98	.09	27.41
1958.....	3.27	11.93	2.84	4.72	3.01	1.49	1.06	.09	28.41
1959.....	3.32	12.06	2.97	4.88	2.82	1.39	.98	.10	28.52
1960.....	3.20	11.46	2.92	4.67	2.73	1.23	.96	.10	27.27
1961.....	3.45	12.43	3.00	4.95	2.95	1.11	1.10	.09	29.08

<sup>1</sup> Does not include 2 to 3 million acres of fruits, vegetables, spices, legumes and other "minor" crops.  
<sup>2</sup> Year in which crop is planted.

Source: Compiled from official sources.



expanded acreage is coming from new or expanded irrigation projects. Some land is lost each year to waterlogging and to accumulation of salts in the root zone of the soil. Projects are underway to reclaim this waterlogged and salty land, and large-scale projects are planned, so that some previously cultivated land at present not farmed will be brought back into cultivation.

The upward trend in the total area of cultivated land should continue for some time, as irrigation projects now under construction extend to new areas, and as former acreage is restored by land reclamation projects. There are an estimated 20 million acres in the Indus River Basin presently not farmed, but most could be cultivated if water were available. The annual flow of water through the basin is sufficient to support some of the additional land, but because of seasonal highs and lows, storage facilities are needed, mainly in the upper reaches of the rivers. Underground water supplies offer some potential for increasing irrigated farming land. In time, some of this land will be used for farming, but whether or not cotton will share the expanded acreage depends on numerous factors and is therefore difficult to predict. Food crops have claimed much of the land added in the last few years, and sizable quantities of food grains, mainly wheat, must still be imported each year. Availabilities of wheat and rice under aid programs, and through barter arrangements, have reduced foreign exchange requirements and made possible imports that otherwise probably would not have been made. These imports, in turn, have freed land for crops other than food grains, and probably have exerted some influence in the maintenance of cotton acreage, especially inasmuch as imports have kept food grain prices from climbing.

It is reasonable to expect some increase in cotton acreage in Pakistan during the next few years, unless unexpected changes occur in cropping patterns, in prices for various commodities, in yields of the different crops produced, and in the general agricultural economy. The rate of increase will depend on the previously mentioned factors plus demand for cotton by the rapidly expanding textile industry in Pakistan.

## Yields

Yield Comparisons.--Cotton yields in Pakistan are very low when compared with irrigated cotton acreages in many other parts of the world. Yields of lint averaged 199 pounds per acre in 1950-54, 189 pounds in 1955-59, and 200 pounds in the 5-year period ending in 1962. In California and Arizona, where climatic conditions are similar and where acreage is also irrigated, yields average almost 5 times those of Pakistan. Research plots have demonstrated on several occasions that under favorable Pakistani conditions varieties now in production are capable of yielding up to 1,000 pounds of lint per acre.

Cultural Practices.--Poor farming practices are one of the major drawbacks to higher cotton yields in Pakistan. The application of a few improved cultural practices, relatively inexpensive, would greatly increase yields, and experiments have demonstrated repeatedly that, with the application of known techniques, much higher yields are easily attainable.

Table 2.--COTTON: Pakistan, acreage, yield and production, crop years 1947-62

Year beginning August 1	Acreage	Yield	Production
	1,000 <u>acres</u>	Pounds <u>per acre</u>	1,000 <u>bales<sup>1</sup></u>
1947.....	3,122	142	925
1948.....	2,800	143	832
1949.....	2,862	174	1,035
1950.....	3,011	195	1,225
1951.....	3,244	198	1,340
1952.....	3,467	215	1,552
1953.....	2,930	193	1,179
1954.....	3,185	196	1,303
1955.....	3,529	196	1,444
1956.....	3,607	188	1,410
1957.....	3,641	185	1,405
1958.....	3,305	184	1,265
1959.....	3,370	193	1,355
1960.....	3,242	207	1,398
1961.....	3,488	201	1,457
1962.....	3,283	234	1,600

<sup>1</sup> Bales of 480 pounds net weight.

Source: Compiled from official sources, FAS.

Before planting, cotton land is normally plowed two or three times with a pointed wooden stick or with a steel-pointed wooden plow drawn by two bullocks. Because of the lack of draft power, land is plowed only four to five inches deep, and this lack of deep plowing has resulted in the formation of an extremely hard soil layer at a fairly shallow depth. This hard pan prevents penetration of cotton tap roots to normal depth. Also, the hard pan prevents rapid penetration of irrigation water, and this results in a tendency for the tap roots of the plant to rot and die before development of mature bolls.

An estimated 70 percent of Pakistan's cotton acreage is sown broadcast; the rest is planted in rows varying from 20 to 40 inches wide. Yields on the broadcast acreage are generally much lower than yields on row-planted cotton. This reflects, primarily, poorer stands on broadcast acreage, but poor stands are responsible for a number of practices that tend to lower yields. Broadcast acreage is sown by spreading seed by hand, then covering with a wooden drag, with a consequence of large bare areas where seeds are improperly covered and also bunching of plants where seeds are dragged together. When seeds are sown broadcast, cultivation after planting is not feasible, of course, except by means of a hoe, and this is made more difficult because of the tendency for bunching of plants and the large bare areas. The areas not shaded by mature cotton plants continue to sprout weeds and grass after each watering or rain, and numerous hand cultivations are needed to keep the cotton clean.

Of course, irregular stands result in inefficient use of irrigation water applied. Almost all irrigation done in Pakistan is border irrigation; that is,

small dikes are built around small plots, and these plots are flooded. Thus, the blank areas must be watered with little benefit to the cotton, and bunched plants compete for the water that reaches them. In addition, poor stands discourage the use of commercial fertilizer and in cases where barnyard fertilizer is applied, much of the beneficial effect is lost to weeds and grass.

Most of the cotton-producing area of West Pakistan is irrigated, but distribution of available supplies of water are such that waterings must be light although applied frequently. Usually about three to four acre-inches of water are available each 15 to 18 days during the cotton-growing season, much of which is lost to evaporation because of low humidity and high summer temperatures. These light waterings are one of the major factors in the well-publicized land salting problem. In areas where this type of salting occurs, the problem can be overcome by sowing a crop with heavy water requirements such as rice. Reportedly, continued heavy watering for two years usually is sufficient to leach the salt to a depth where it is no longer a problem. However, because of the limited availability of water in the summer months, there is widespread reluctance on the part of water control officials to release sufficient additional water for larger acreages of crops with heavy water requirements.

Much publicity has been given to the need for improved varieties to increase crop yields, but unless cultural practices improve, the requirements placed on a variety to improve cotton yields would be tremendous. No doubt a system for growing and distributing pure seed with high germination would help yields because the mixed seeds with poor germination now planted add to the problem of a poor stand.

Credit and Capital Shortages.--One of the main drawbacks to overcoming the problem of low cotton yields appears to be a lack of production credit at reasonable interest rates. Because of the lack of capital or sufficient credit a small-scale farmer is not willing or able to invest in fertilizer, insecticides, or even simple equipment needed to cultivate his land more properly. Cash is in such short supply that small farmers have at times sold the subsidized fertilizer distributed by the government for a small profit to operators of larger farms, rather than use it on their crops. Moreover, the relatively high profits from sugarcane and some fruits tends to encourage the use of available fertilizer on these crops rather than on grains and cotton. Fertilizer has been subsidized at varying rates for a number of years. The subsidy rate was for several years around 50 percent of cost or above, but in 1962-63 the rate was reduced to 25 percent, and eventually the subsidy is to be eliminated completely. The government is expanding domestic fertilizer production by building three plants. These plants, using natural gas as the basic raw material, will produce urea, ammonium nitrate, and ammonium sulfate.

Cotton Marketing.--Another major problem that tends to perpetuate low cotton yields is the present marketing system for cotton. Almost without exception, farmers sell seed cotton, in most cases to local commission agents or local dealers. Commission agents generally represent gins, whereas local dealers operate on their own account. Agents and dealers serve in local villages where ginning facilities are not available. This system adds an expensive step to the marketing process, but the step is



necessary in many cases because farmers have neither facilities for transporting the crop to gins, nor a volume of cotton large enough to make it profitable to haul it to gins.

Prices received by farmers do not necessarily reflect a level that could normally be expected from the world supply-and-demand situation. Little nationwide or worldwide market information is available to the average farmer, so local prices tend to reflect conditions in the immediate vicinity. For example, a 5-percent increase in a particular area's cotton crop can cause a drop of as much as 25 percent in seed cotton prices, even though export prices for cotton may be increasing. Local buyers tend to be much better informed, and they are able to turn their knowledge into cash.

Many local buyers make loans to farmers, often with gin-owner backing, with the coming crop used as security. Farmers may begin to borrow as early as planting time, and the loan will be in the form of cottonseed for planting. Through such loans local buyers are better able to dictate terms of purchase, and these terms usually are to the disadvantage of the farmer. Advance sales of the crop are not uncommon, and these sales are sometimes discounted 25 to 50 percent of the eventual value of the crop. In the former Sind land revenue assessments for the previous year fall due on July 31 of the following year. Farmers who have no cash or who cannot borrow money often make advance sales of their crop to meet revenue payments, and since the buyer has such a good advantage in these cases, discounts generally are quite large.

The marketing system also has a built-in disincentive to produce a higher quality cotton. A farmer's costs of producing cotton of a better quality usually are higher, but on the other hand, seldom are premiums paid for quality. Lowest qualities usually are the basis for prices for all cotton offered for sale. This not only discourages quality improvement but also in many cases results in mixing of Upland varieties and of Upland and Desi cotton. Desi cotton prices generally are somewhat different from Upland prices; consequently, growers and local buyers often mix both types in order to sell the mixture as the higher priced growth. Also, producers are encouraged to add dirt or other extraneous matter to cotton because of lack of quality premiums.

In the former Punjab an attempt is made to control marketing of agricultural commodities under the Agricultural Produce Marketing Act of 1941. This Act provided for local markets at village levels. Called mundies, these local markets are regulated and marketing charges are fixed. The provisions of the Act, while helpful, have failed to overcome many of the basic marketing problems of cotton, such as the lack of premiums for quality.

After cotton reaches the gin, the marketing system is well organized. Independent ginneries have a wide selection of alternatives for selling cotton, including numerous local textile mills as well as exporters. The well-regulated market in Karachi, made possible by the Karachi Cotton Exchange, assures ginneries a fair price when local textile mills are unable to purchase cotton. Established standards for seed cotton would be a first step toward assuring farmers of a fair price for their crop, but there are so many obstacles to be overcome in the marketing system that such an exercise



would be almost futile unless there were corresponding improvements in other important sectors.

A tremendous potential exists for improved agricultural yields in Pakistan, and eventually something probably will be done to achieve some of this potential. A continuation of crop yields at present low levels seems very unlikely, as does, also, much improvement in yields of cotton without similar improvement in many other crops. The drawbacks to widespread improvements in yields, however, are so formidable that gains will be slow without exceptionally large investments, investments at present beyond the capacity of Pakistan.

## Production

Trends in Production. - There has been a slight upward trend in cotton production in Pakistan since 1950. Much of the change in recent years is attributed to yields enhanced by favorable weather conditions, rather than a basic change in farming practices. Production in 1962 was a record 1.6 million bales, compared with the previous record of 1.55 million bales produced in 1952. The exceptionally high outturn in both these years reflects, primarily, better-than-average weather conditions during these growing seasons.

Annual production in 1950-54 averaged 1.32 million bales; in 1955-59, 1.38 million bales; and in the 5-year period ending with 1962, 1.39 million bales. Yields and acreages have varied considerably from year to year, and this, naturally, has been reflected in sizable annual variations in production.

Production of Desi-type cotton has been relatively stable at around 150,000 to 200,000 bales, so most of the wide variations in production have been in Upland Cotton. Wide price fluctuations have encouraged substitution in some of its main end-uses. There has been a sharp downward trend in consumption of short-staple cotton in importing countries since 1950. Since Pakistan depends largely on export markets for most of the Desi produced, a downtrend in production is possible. Low prices may tend to slow the downtrend in consumption, but production at current levels appears to be in excess of demand.

According to a survey conducted by the International Cotton Advisory Committee, the principal end-use of Desi-type cotton throughout the world apparently is for mixing with wool for blanket manufacture. Other mill uses include coarse yarns for such products as carpets, industrial fabrics, bedspreads, towels, curtain material, and cloth used for linings. The most important non-mill use is in the manufacture of absorbent or surgical cotton, while smaller quantities are consumed as padding and wadding.

In the United States the major use of Asiatic-type cotton, including Desi, is for blankets, but small quantities are used in several of the previously mentioned end uses. U. S. imports of this type of cotton, all with a staple length of less than three-fourths inch, are not restricted by quota and are admitted duty-free. From 1946 through 1958 imports were restricted by quota to 70 million pounds each crop year, but the quantities imported generally were far below this level. That the use of Asiatic cotton is declining in the United States is verified by the decline in imports. In 1950-54

Table 3.--RAW COTTON: Supply and distribution in Pakistan, 1947-62

Year beginning August 1	Begin- ning stocks	Produc- tion	Imports	Total supply	Consump- tion	Destroyed	Exports	Ending stocks	Total distri- bution
1947.....	1,000 bales <u>250</u>	1,000 bales <u>925</u>	1,000 bales <u>1</u>	1,000 bales <u>1,176</u>	1,000 bales <u>125</u>	1,000 bales <u>3</u>	1,000 bales <u>973</u>	1,000 bales <u>75</u>	1,000 bales <u>1,176</u>
1948.....	75	832	1	908	143	8	677	80	908
1949.....	80	1,035	2	1,117	130	8	854	125	1,117
1950.....	125	1,225	2	1,352	160	13	1,039	140	1,352
1951.....	140	1,340	2	1,482	175	4	903	400	1,482
1952.....	400	1,552	4	1,956	230	3	1,273	450	1,956
1953.....	450	1,179	4	1,633	440	---	893	300	1,633
1954.....	300	1,303	3	1,606	660	2	634	310	1,606
1955.....	310	1,444	15	1,769	820	1	723	225	1,769
1956.....	225	1,410	20	1,655	850	4	506	295	1,655
1957.....	295	1,405	3	1,703	920	---	383	400	1,703
1958.....	400	1,265	6	1,671	1,020	1	375	275	1,671
1959.....	275	1,355	6	1,636	1,100	3	333	200	1,636
1960.....	200	1,398	4	1,602	1,115	3	244	240	1,602
1961.....	240	1,457	42	1,739	1,120	---	299	320	1,739
1962 <sup>1</sup> .....	320	1,600	15	1,935	1,160	---	450	325	1,935

<sup>1</sup> Partly estimated.

Official sources, FAS.

imports averaged 37,300 bales annually, compared with an annual average of only 21,300 bales in 1955-59.

In East Pakistan all of the 12,000- to 15,000-bale annual outturn is Comilla, a short harsh Asiatic cotton, while West Pakistan produces both Desi-type and Upland-type cotton.

Table 4.--SHORT HARSH ASIATIC COTTON:<sup>1</sup> U.S. imports by country of origin, 1950-51

Year beginning August 1	Pakistan	India	Burma	Total
	<u>Bales</u>	<u>Bales</u>	<u>Bales</u>	<u>Bales</u>
1950.....	4,672	61,485	0	66,157
1951.....	400	12,224	142	12,766
1952.....	7,983	36,346	0	44,329
1953.....	14,167	17,915	750	32,832
1954.....	11,183	17,372	713	29,268
1955.....	22,468	5,601	0	28,069
1956.....	16,014	3,398	0	19,412
1957.....	13,446	8,258	231	21,935
1958.....	9,262	6,710	0	15,972
1959.....	13,488	7,335	200	21,023
1960.....	6,337	4,073	3,150	13,560
1961.....	6,604	19,586	3,786	29,976

<sup>1</sup> Staple length of less than 3/4 inches.

Source: Compiled from Bureau of Census data.

Characteristics of Pakistani Cotton.--The average staple length of Pakistan's cotton has shown some increase in recent years. This increase reflects new longer-staple varieties of cotton released for production by cotton research personnel. Each variety is grown in a fairly well-defined section of the Indus River Basin deemed most suitable for the particular variety.

Varieties Grown.--In the former Punjab, control of production of varieties by area is maintained under the Punjab Cotton Control Act. In the former Sind, there are no official variety controls by area, but generally only one variety each of the two types of cotton is grown. Briefly, the different varieties produced, areas of production, and a rough approximation of the quantity produced in 1961-62, are as follows:

#### UPLAND COTTON:

Punjab (under the Punjab Cotton Control Act of 1949)

- 4-F This was the first commercially produced Upland cotton grown in Pakistan. For many years, following its 1914 beginning, all Upland cotton in Pakistan was 4-F. It is now restricted to the Districts of Jhang, Lyallpur, Bahawalpur, and Montgomery. Production in 1961-62 was 125,000 bales.

Table 5.--COTTON: Pakistan, fiber characteristics by type and variety

Type and variety	Staple length range	Micronaire	Tensile strength	Processing performance		
				Feasible yarn count		Opening, picking, and carding waste
				Warp	Filling	
<u>Upland</u> Punjab: 4-F..... L.S.S..... 289-F <sup>2</sup> ..... Lassani..... AC. 134..... Sind: Sind N.T.....	Inches  3/4 to 7/8 27/32 to 15/16 15/16 to 1-1/32 1-1/32 to 1-1/8 1 to 1-1/16  15/16 to 1	Range  5.0 to 6.0 4.5 to 5.5 4.5 to 5.5 4.0 to 5.0 4.0 to 5.0  4.0 to 5.0	1,000 pounds psi <sup>1</sup>  80 to 90 80 to 90 90 to 105 85 to 100 85 to 100  85 to 95	Count  20's 25's 30's 60's 40's  30's	Count  20's 30's 40's 70's 50's  30's	Percent  15 to 19 11 to 19 13 to 18 14 to 19 14 to 19  16 to 20
<u>Desi</u> Comilla..... Punjab..... Sind.....	3/8 to 1/2 1/2 to 5/8 3/8 to 5/8	8.0 to 11.0 6.5 to 9.0 7.0 to 10.0	70 to 80 70 to 80 70 to 80	( <sup>3</sup> ) Up to 10's Up to 10's	( <sup>3</sup> ) ( <sup>3</sup> ) ( <sup>3</sup> )	( <sup>3</sup> ) 13 to 18 11 to 16

<sup>1</sup> Pounds/square inch.<sup>2</sup> Includes 124-F, 199-F and 289-F/43.<sup>3</sup> Data not available.

Source: Pakistan Central Cotton Committee.



Table 6.--COTTON: Production by staple length in Pakistan, 1947-61

Year beginning August 1	13/16" and below	27/32" to 31/32"	1" to 1-1/32"	1-3/32"	Total crop
	<u>1,000</u> <u>bales</u>	<u>1,000</u> <u>bales</u>	<u>1,000</u> <u>bales</u>	<u>1,000</u> <u>bales</u>	<u>1,000</u> <u>bales</u>
1947.....	177	683	65	---	925
1948.....	147	625	60	---	832
1949.....	123	798	114	---	1,035
1950.....	213	903	109	---	1,225
1951.....	206	1,026	108	---	1,340
1952.....	218	1,221	113	---	1,552
1953.....	194	894	91	---	1,179
1954.....	229	961	113	---	1,303
1955.....	234	1,078	132	---	1,444
1956.....	272	1,016	122	---	1,410
1957.....	243	1,043	119	---	1,405
1958.....	194	886	170	15	1,265
1959.....	210	861	273	11	1,355
1960.....	161	874	343	20	1,398
1961.....	194	822	435	6	1,457

Source: Derived from Pakistan Central Cotton Committee data.

L.S.S. A selection from 4-F, the seeds from this variety were first distributed in 1935. It is now grown in the Districts of Lyallpur, Shahpur, and Sheikhupura. Production in 1961-62 was about 265,000 bales.

289-F This variety, introduced in the Punjab in 1932, has been replaced by several new selections, but the commercial trade name of 289-F is still used for all these cottons, even though to the plant breeders they are known as 124-F, 199-F, and 289-F43. These cottons are grown in Multan, Montgomery, Muzaffargarh, Dera Chazi Khan, Bahawalpur, Rahimyarkhan, Sarag, and Thal Districts. Production in 1961-62 was 250,000 bales.

AC-134 A relatively new variety released in 1959, the output of this cotton has increased rapidly. It has been approved for cultivation in the entire districts of Multan, Montgomery, and Lahore. Production in 1961-62 was 315,000 bales.

Lassani A selection from 289-F, this long-stapled variety was introduced in 1959. Production is permitted in Multan, Muzaffargarh and Dera Ghazi Khan. Production in 1961-62 was 20,000 bales.

#### Sind

M-4 This variety, known to the trade as Sind N.T., is practically the only Upland cotton produced in the former province of Sind, which covers the entire southern part of the Indus River Basin. Production in 1961-62 was 320,000 bales.

## DESI- TYPE COTTON

### East Pakistan

Comilla The only cotton produced in East Pakistan, this short harsh cotton is grown in the Chittagong Hill Tracts. Production in 1961-62 was 14,000 bales.

### Punjab

Punjab Production of this cotton is permitted on a limited scale and Baha- throughout the Punjab. Production in 1961-62 was 75,000 walpur bales. An improved variety, 231R, is gradually replacing Desi the old Punjab Desi.

### Sind

Sind Desi This cotton is produced throughout Sind, with the main areas of production centered around Newab Shah. Production in 1961-62 was 66,000 bales. The old variety is being replaced by an improved variety called T.D.1.

Several new varieties, both of Upland and Desi types, are planned for release over the next few years. As new varieties are introduced, some of the standard varieties now produced probably will go out of commercial production, especially the older ones. Varieties now in various stages of testing have improved fiber characteristics, and could result in substantial



At the Government Research Farm at Multān, chief botanist stands beside multiplication plot for Lassani II, a new promising variety of Upland cotton. New varieties being tested have improved fiber characteristics, and could result in substantial improvement of quality.

quality improvement in Pakistani cotton if pure seed strains could be maintained in large quantities for planting and if some of the other drawbacks to producing and marketing a high quality cotton could be overcome.

## Comilla Cotton

East Pakistan produces the world's only commercial quantities of the very short, harsh Comilla. This cotton is reputedly among the shortest and harshest of all the world's cottons. Because it is so short, coarse, and highly resilient, Comilla is used to make blankets and as padding in clothing. In East Pakistan, Comilla is spun and woven for apparel by local people.

Most of the production, ranging from 12,000 to 15,000 bales annually, is centered in the Chittagong Hill Tracts in southeastern East Pakistan, although a small quantity is produced in the north central section of East Pakistan. Methods used in producing Comilla cotton are quite primitive. Before the beginning of the monsoon rains, a suitable tract of land is selected and cleared. Smaller trees and underbrush are cut down, allowed to dry, then burned. When the monsoon rains begin in late May or early June, a mixture of cottonseed and seed of several other crops such as rice, corn, sesame, vegetables and legumes are planted together in hills. Some hoe cultivation is employed to keep weed and brush growth down during the rainy season. The different crops are harvested as they mature, and cotton, generally the last to mature, is gathered from October through December. Once the land has been used for a crop it is allowed to lie fallow for at least three years, during which time native vegetation rapidly retakes the area.

About two-thirds of the annual outturn of Comilla is used locally by the cottage textile industry; the rest is exported. Production has fluctuated rather narrowly at around 12,000 to 15,000 bales annually since independence. Acreage, too, has been relatively stable at 50,000 to 60,000 each year. Yields are low, of course, because of production methods. Since 1947, they have averaged about 115 pounds per acre.

There is little likelihood of a significant upswing in Comilla cotton production. Increasing availabilities of factory-produced textiles are reducing usage by the cottage industry, and there appears to be little opportunity to expand export.

## Government Planning and Cotton Production

The Pakistan Government's interest in agricultural production is evidenced by the Five-Year Plans for Economic Development that have evolved since 1955. The First Five-Year Plan covered the period from 1955-56 through 1959-60, and the Second Five-Year Plan is for 1960-61 through 1964-65. In each Plan increased agricultural production has been a primary aim.

Cotton is the leading cash crop in West Pakistan, is an important earner of foreign exchange, and is the basic raw material for the largest manufacturing industry in the country; therefore it has received considerable attention in both Plans. The goal for cotton production in the First Plan was for



an increase of 25 percent over the five years, from the base of 1.3 million bales produced in 1954-55. Cotton production increased only slightly during the First Plan, although it should be noted that the National Plan was not even officially approved until May 1958. Cotton production in 1959-60 was only 4 percent above 1954-55, and acreage in 1959-60 was 6 percent above the 1954-55 base. Yields, which were to account for much of the expanded output envisioned in the Plan, actually declined slightly.

The goal for cotton production in the Second Plan is 1.84 million bales by 1964-65, an increase of almost half a million bales from the 1.35 million bales gathered in 1959-60. Production targets by years and achievements to date are as follows:

<u>Year</u>	<u>Target</u>	<u>Actual</u>
	<u>1,000</u> <u>bales</u>	<u>1,000</u> <u>bales</u>
1960-61	1,435	1,398
1961-62	1,535	1,450
1962-63	1,635	1,600
1963-64	1,735	
1964-65	1,835	

Production has increased since the inception of the Plan in May 1960, but, until 1962, the increase was at a rate about a year behind schedule. The expanded output, particularly the record crop of 1962, reflects, mainly, usually favorable weather conditions rather than achievement of Plan objectives. Acreage in 1964-65 is projected at 135,000 above the 3.37 million acres planted in 1959, and during the first three years there has been an increase of 65,000 acres. New acreage is expected to reflect reclaimed acreage and newly irrigated land. Although improved cultural practices are to increase yields during the Plan period, thus far there is little evidence of changes in farming methods.

Goals for agricultural production are not necessarily unrealistic, and in a more developed country would probably be considered conservative. However, achievement of these goals involves radical changes in basic practices of farmers, almost 80 percent of whom are illiterate. These farmers also are almost completely lacking in working capital with which to finance production expenses and orderly marketing. Such far-reaching and interrelated programs are needed that goals can be attained only by aggressive action and through leadership by governmental and other influential groups. Pakistan just does not have the personnel, capital, or foreign exchange for fulfilling the goals of both the agricultural plan and the industrial plan. Industrial development, unlike that of agriculture, has progressed in some cases at rates even faster than those called for in the Plan. Foreign agricultural commodities have been available to Pakistan under various aid programs, and these programs have provided additional capital to the country for development purposes. While some of this capital has been used for agriculture, its availability has freed almost all other capital and foreign exchange for industrialization, and for purchase of consumer goods, and lessened the urgent need to increase agricultural production.



Extension methods, as they are employed in the United States and other more developed countries, meet with little success in Pakistan. Dissemination of information is extremely difficult because of the low literacy rate and the lack of contact outside a limited local area. Some part of this problem undoubtedly will disappear as more of the rural people learn to read and, consequently, to appreciate the value of new practices.

There is, therefore, a possibility that the goal for cotton production will not be reached. Unless the unusually favorable weather conditions of 1962 prevail during the coming years, or price relationships between cotton and competitive crops change sharply to favor expanded acreage of cotton, there is little to indicate that its production in 1964-65 will reach 1.84 million bales.

## Governmental and Private Cotton Organizations

The Government of Pakistan and the Government of West Pakistan have legal authority to maintain fairly comprehensive control over the cotton industry, and some segments of the industry are strictly controlled. In many instances, however, little attempt is made to enforce regulations, particularly where they relate to production. Shortages of adequately trained personnel, inadequate facilities, indifference of some leaders to cotton production and to agriculture in general, and lack of desire for either enforcement of the rulings or cooperation with them, all combine to render ineffective many regulations.

Several official and private organizations are charged with the responsibility for carrying out various phases of the government's cotton program. These include the Pakistan Central Cotton Committee, the Cotton Board, the Karachi Cotton Association, the All Pakistan Textile Mills Association, and the Agricultural Development Corporation, as well as the Ministry of Agriculture and West Pakistan Department of Agriculture.

The Pakistan Central Cotton Committee, probably the most influential organization for raw cotton, was established by an Act of the government in November 1948. It now performs for Pakistan many of the functions formerly carried out for what became Pakistan by the Indian Central Cotton Committee. PCCC is charged with the responsibility of "improvement and development of growing, marketing, and manufacturing of cotton." A large share of cotton research related to raw cotton is concentrated at PCCC's 24 research stations. Generally, all the 36 projects now underway are included in one or more of the following broad categories:

1. Improvement of yields and quality of lint, and oil content of the seed through plant breeding.
2. Multiplication and distribution of planting seed of improved varieties, and
3. Survey and control of insects and diseases.

The field personnel of PCCC generally are well-trained. In cooperation with research people at the agricultural colleges they have developed several well-adapted cotton varieties and established cultural guidelines that, if adopted on a broad scale, would greatly improve the quality and yield of cotton.

The PCCC also has three fiber-testing laboratories in the cotton growing areas of West Pakistan, one at Lyallpur, one at Multan, and one at Tandojam, each equipped with modern fiber-testing equipment. And, in 1955, the committee established an Institute of Cotton Research and Technology at Karachi with facilities for fiber-testing and spinning performance tests.

The PCCC has played an important role in many of the changes that have taken place in the cotton industry of Pakistan since 1948. In addition to advances through research, much of the legislation relating to cotton has been based on recommendations of this group, and some of the revisions in trading rules for cotton reflect proposals of the Committee.

The Karachi Cotton Association provides facilities for the orderly marketing of Pakistan's cotton crop. Its membership consists of representatives of almost all segments of the cotton industry, but cotton traders comprise by far the largest share of the members. KCA provides facilities for a futures market, establishes standards for cotton quality and rules for cotton trading, and provides panels for arbitration. Four of the 21 members of the Board of Directors are government nominees.

The Association, with its diversified membership, provides a strong organization for advancing proposals to improve the cotton industry. Unfortunate for the KCA from the standpoint of cotton production has been the strong desire to develop a domestic textile industry. Much of the legislation over the past decade has provided favorable treatment to the textile industry by keeping internal cotton prices at a lower level than world prices. These lower prices, while allowing a wider profit margin for the textile industry, have kept producer prices low and this, in turn, has discouraged expanded production. The volume of cotton moving from upcountry through Karachi has declined considerably with the development of textile mills in the interior. In contrast with the early years of independence, when practically all of the country's cotton crop moved through Karachi, mainly for export by KCA members, only about half of each year's outturn now reaches Karachi and the other half is used by interior mills.

The Cotton Board, an agency of the Central Government, serves to coordinate government cotton policy. Established by the Cotton Control Act of 1957, the Board is charged, primarily, with promotion of international trade in cotton. The Act creating the Board also gave the government-wide powers to control cotton trading, both domestic and foreign, and the Cotton Board has the legal authority for enforcement of the Act.

The All Pakistan Textile Mill-Owners Association provides for the government a convenient organization for assisting in plans and programs for textiles. For example, when the government placed export quotas on cotton textiles in 1960 (quotas to insure minimum rather than maximum exports) the APTMA was given the responsibility for assigning quotas to the various mills and for assuring achievement for the overall quota. Further the APTMA advises the government on textile and related matters.

The Agricultural Development Corporation, established in October 1961 on the recommendation of the Food and Agriculture Commission set up by the Central Government in July 1959, has responsibility for development of new regions for agriculture and for rehabilitation of settled areas. The distribution of both locally-produced and imported fertilizers are under the direction of ADC. This organization may exert a growing influence, but because it was only recently established, it has not yet had time to develop an adequately trained staff or to exert much of an influence on Pakistan's agricultural output. And the long-range nature of many of ADC's objectives preclude dramatic results for a long time to come.

## Cotton Exports

Trends in Exports.--Exports of cotton from Pakistan have trended sharply downward since 1950 as a rapidly rising domestic offtake by Pakistan's own cotton textile industry accounts each year for a larger share of the relatively stable production. Exports registered a sharp upswing in 1962-63, but this reflects the exceptionally good harvest of 1962 rather than presaging a change in the trend. Desi cotton exports have gained a much larger share of total cotton shipments because the expansion in the domestic textile industry has been aimed at consumption of Upland cotton. Current plans for further expansion of the textile industry probably will reduce Upland cotton exports to an even lower level, since the outlook for a rapid increase in production is not particularly bright.

Cotton's Role in Total Exports.--Cotton exports have played an important role in the foreign trade of Pakistan and traditionally have been second only to those of jute as an earner of foreign exchange. In 1950-54, cotton accounted for almost 40 percent of the foreign exchange earned through exports, but the decline in shipments dropped the product's share to less than 20 percent in 1955-59. Cotton exports accounted for 32 percent of the foreign exchange earnings in 1960, but for only 5 percent in 1961. There was official hope that the expanding industry would export a sufficiently large volume of cotton textile products to offset the declining role of raw cotton in foreign trade. However, shipments of cotton textiles, negligible in 1950-54, accounted for 4 percent of total exports in 1955-59, 10 percent in 1960, and 4 percent in 1961. The declining share of exports held by cotton and cotton products is one of the primary reasons for government concern for expanded cotton production. West Pakistan is particularly concerned with declining export earnings for cotton. East Pakistan earns a sizable share of the country's foreign exchange with jute, and thus has insisted that it should have a larger relative share of the foreign exchange spent for industrialization.

Too often the decline in exports of cotton from Pakistan has been associated with a similar reduction in foreign exchange earnings. Although the relationship is important and direct, it cannot be separated from a third factor, namely, textile imports. Exports of cotton and cotton products have declined sharply since 1950, but this generally has been offset by a sharp drop in textile imports. Consequently, the net balance in foreign exchange, except for 1961, has declined only moderately.



Table 7.--COTTON AND COTTON PRODUCTS: Pakistan, value of exports, imports and net exchange balance, 1950-61

Year	Exports			Imports			Net exchange balance <sup>1</sup>
	Cotton	Cotton textiles	Total	Cotton	Cotton textiles	Total	
	Million rupees	Million rupees	Million rupees	Million rupees	Million rupees	Million rupees	Million rupees
1950....	519.2	---	519.2	---	427.9	427.9	91.3
1951....	961.9	.3	962.2	5.2	548.9	554.1	408.1
1952....	864.0	.7	864.7	3.8	469.2	473.0	391.7
1953....	630.9	.9	631.8	4.3	62.7	67.0	564.8
1954....	348.7	.8	349.5	3.1	78.1	81.2	268.3
1955....	403.0	7.5	410.5	13.1	36.8	49.9	360.6
1956....	363.8	60.9	424.7	.4	64.3	64.7	360.0
1957....	331.7	20.4	352.1	29.8	18.1	47.9	304.2
1958....	240.5	15.4	255.9	11.2	5.7	16.9	239.0
1959....	120.7	148.4	269.1	8.9	4.4	13.3	255.8
1960....	211.2	190.5	401.7	6.4	21.8	28.2	373.5
1961....	103.7	68.0	171.7	9.8	20.7	30.5	141.2

<sup>1</sup> In each case, the exchange balance is a net export balance.

Source: Compiled from official sources.

Desi Exports.--Three-fourths of the Desi-type cotton produced since 1954-55 has been exported (including the Comilla cotton shipped from East Pakistan). In the early 1950's, Desi production was smaller than the present volume, and exports were only about 60 percent of production. Both production and exports have trended downward since the mid-1950's slightly, as a result of the smaller export demand for short-stapled cotton. However, Desi exports are now more than a third of the total, whereas in earlier years they accounted for only 10 percent of cotton exported.

As the textile industry expands further and is able to supply increasing quantities of cotton textiles to the home market, all made from Upland, domestic use of Desi cotton probably will decline. This along with shrinking export demand, will cause low prices and probably will result in reduced production.

Upland Exports.--Pakistan's sharp downward trend in cotton exports reflects smaller shipments of Upland cotton that competes directly with much cotton shipped from the United States. This is not meant to imply that Desi cotton does not compete with U. S. cotton, but the degree of competition is somewhat less because of the low practical upper limit of yarn counts that can be spun with Desi. Expanding domestic consumption in Pakistan has all been in Upland cotton, and unless production rises, current expansion plans of the textile industry will reduce exports of Upland cotton to negligible quantities in the near future. Pakistan cannot, however, be considered as out of the cotton export market forever. A tremendous potential exists for expanding agricultural production, but progress will be slow for the numerous reasons described previously in this report. If, or when, this potential develops, cotton exports from Pakistan could recover rapidly toward the level of the early 1950's.



Table 8.--COTTON: Exports, Desi, total and Desi as a share of total, average 1950-54, annual 1954-61

Year beginning September 1	Exports		Desi as percentage of total
	Desi <sup>1</sup>	Total	
Average: 1950-54 <sup>2</sup> .....	<u>1,000 bales</u> 82	<u>1,000 bales</u> 830	<u>Percent</u> 10
Annual:			
1954.....	96	685	14
1955.....	173	691	25
1956.....	117	512	23
1957.....	129	433	30
1958.....	153	395	39
1959.....	137	386	36
1960.....	83	206	40
1961.....	125	343	36

<sup>1</sup> Excludes Comilla cotton, of which about 5,000 bales are exported annually.

<sup>2</sup> Partly estimated.

Source: Karachi Cotton Association.



Cotton stored near port facilities. Cotton is a valuable source of foreign exchange.

Table 9.--COTTON: Pakistan, exports by destination, crop years beginning August 1, 1947-61

Country of destination	1947	1948	1949	1950	1951	1952	1953
	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>
Australia.....	27.2	1.7	20.1	50.6	8.8	26.1	34.7
Austria.....	.1	---	6.5	5.4	1.3	5.6	2.9
Belgium.....	109.3	21.5	7.5	6.5	.2	26.5	15.2
Canada.....	.8	.3	( <sup>1</sup> )	---	( <sup>1</sup> )	---	.2
China, Mainland	72.8	33.8	39.2	108.7	300.9	96.9	153.2
Czechoslovakia.	4.2	30.7	17.5	7.1	10.5	---	---
France.....	54.0	11.4	102.8	75.5	58.0	80.3	71.7
Finland.....	---	1.2	7.0	21.8	2.8	---	---
Germany, West..	---	7.3	28.6	38.1	26.3	89.0	32.1
Hong Kong.....	43.5	34.3	196.7	119.4	62.8	100.7	96.8
Hungary.....	---	---	---	.7	---	2.3	---
India.....	114.2	278.9	31.2	21.7	6.5	9.9	19.4
Italy.....	71.8	12.8	35.7	89.8	58.5	52.1	61.6
Japan.....	43.7	61.1	123.2	280.9	234.1	517.4	261.9
Netherlands....	20.6	.6	11.9	8.0	.8	8.8	3.1
Poland.....	---	---	26.5	33.8	41.2	---	---
Spain.....	44.4	5.4	23.0	44.0	18.8	47.6	9.0
Sweden.....	12.4	20.0	2.0	15.0	.3	15.4	9.7
Switzerland....	1.4	.3	.7	.8	.2	.8	.3
Union of South Africa.	---	---	.3	1.8	.5	1.3	2.1
United Kingdom.	73.8	86.1	50.5	102.2	67.1	102.7	87.8
United States..	33.9	14.0	2.8	3.0	.3	9.0	11.8
USSR.....	113.9	52.0	86.3	---	---	63.1	---
Yugoslavia.....	.8	2.0	21.5	.8	---	---	---
Other.....	6.8	1.5	12.5	3.4	3.0	17.4	19.7
Total.....	849.6	676.9	854.0	1,039.0	902.6	1,272.9	893.2

<sup>1</sup> Less than 500 bales.

Continued

Table 9.--COTTON: Pakistan, exports by destination, crop years beginning August 1, 1947-61--Continued

Country of destination	1954	1955	1956	1957	1958	1959	1960	1961
	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>	<u>1,000 bales</u>
Australia.....	22.6	19.9	1.7	1.5	0.4	0.6	0.9	0.9
Austria.....	2.9	4.1	.6	.3	.6	1.0	.8	.3
Belgium.....	15.5	14.8	.1	2.6	.2	1.7	.6	4.1
Canada.....	3.0	1.7	.6	.2	.7	.1	.1	.1
China, Mainland	101.0	126.5	48.9	23.6	51.2	40.9	74.7	10.5
Czechoslovakia.	---	---	---	---	7.4	6.1	.4	.9
France.....	46.9	82.3	91.3	83.4	6.5	12.6	5.4	12.2
Finland.....	---	---	---	---	---	---	---	---
Germany, West..	21.0	33.6	16.5	10.6	4.7	2.5	.1	6.9
Hong Kong.....	70.8	51.0	36.6	32.6	30.3	44.2	58.2	44.6
Hungary.....	---	---	---	---	13.4	---	---	---
India.....	2.5	---	---	---	---	29.0	1.8	74.1
Italy.....	31.6	31.1	2.2	.9	.3	.4	1.2	4.0
Japan.....	226.5	266.0	259.4	189.2	222.6	138.4	88.7	116.5
Netherlands....	2.6	6.7	3.3	2.6	2.1	1.9	.7	1.6
Poland.....	---	---	---	---	3.8	19.3	.2	.7
Spain.....	( <sup>1</sup> )	---	---	---	---	---	---	---
Sweden.....	7.4	3.7	---	( <sup>1</sup> )	.7	.1	( <sup>1</sup> )	---
Switzerland....	.4	.5	.5	.8	.4	.2	.1	1.3
Union of South Africa.	1.6	2.5	1.4	1.3	1.3	1.0	---	.9
United Kingdom.	62.8	53.6	10.7	15.0	15.1	16.6	4.2	8.7
United States..	11.5	21.9	20.9	10.6	9.1	13.4	5.5	10.3
USSR.....	---	---	9.3	6.6	---	---	---	---
Yugoslavia.....	---	---	---	---	---	---	---	---
Other.....	3.6	2.7	1.9	1.4	4.2	2.6	.7	.7
Total.....	634.2	722.6	505.9	383.2	375.0	332.6	244.3	299.3

<sup>1</sup> Less than 500 bales.

Source: Pakistan Central Statistical Office, Statistical Bulletin.  
Official sources, FAS.

Japan has been the leading foreign market for Pakistani cotton, but in recent years a large share of the cotton shipped has been harsh, short-staple types. In 1960-61, 80 percent of the cotton shipped to Japan was Desi, and 75 percent of the Desi exported went to Japan. Practically all of the Desi not shipped to Japan goes to a few countries in Europe and the United States.

Hong Kong is now the leading market for Pakistan's Upland cotton, and Communist China has purchased around 40,000 bales annually during the last few years. Almost every cotton importing country in Europe has purchased Pakistani Upland cotton over the years with the United Kingdom usually the leading purchaser. However, European markets have sustained the bulk of the decline in the use of cotton from Pakistan.

Pakistan's cotton enjoys a fairly good reputation in import markets, primarily because of fiber maturity and high tensile strength. Too, much of the cotton is roller-ginned, and although roller ginning leaves a higher percentage of trash and dirt in the lint, than does saw-ginning, many mills have a liking for roller-ginned cotton. Dryers are not generally needed, and lint cleaners are not used. Saw-ginned cotton in Pakistan usually receives very poor preparation at the gin because of worn equipment.

Export Taxes.--Pakistan levies an export tax on raw cotton exports that varies with market conditions. The tax, reportedly levied for revenue and for price stabilization purposes, has greatly benefitted the domestic textile industry while acting as a deterrent to expanding cotton production. Because a share of the cotton crop is sold in the world market the export tax reduces prices to producers by at least as much as the tax, and probably more than the tax. The textile industry is able to purchase cotton at the lower price.

Cotton exports are regulated by the requirements that each sale contract must be registered with the Export Price Control Department of the State Bank of Pakistan. However, there are no restrictions on destinations, and the export tax generally has prevented heavy foreign sales from creating shortages for domestic textile mills.

The Government of Pakistan has bartered varying quantities of cotton over the last few years. Barter arrangements for cotton in 1961-62 were as follows:

<u>Country</u>	<u>Bales of cotton bartered</u>	<u>Commodity imported</u>
Japan	6,270	Ammonium sulfate
Italy	5,060	" "
Netherlands	1,925	Agricultural chemicals
Germany, West	2,780	" "

## Cotton Imports

Imports of cotton into Pakistan in recent years have all been U. S. cotton under Title I of Public Law 480. Title I permits countries to purchase selected U. S. agricultural commodities for local currencies instead of



Table 10.---RAW COTTON: Exports from Karachi by destination, crop year beginning September 1, 1958-59 through 1961-62

Country of destination	1958-59		1959-60		1960-61		1961-62	
	Upland	Desi	Upland	Desi	Upland	Desi	Upland	Desi
Australia.....	<u>Bales<sup>1</sup></u> 41	<u>Bales<sup>1</sup></u> 362	<u>Bales<sup>1</sup></u> 118	<u>Bales<sup>1</sup></u> 1,130	<u>Bales<sup>1</sup></u> ---	<u>Bales<sup>1</sup></u> 737	<u>Bales<sup>1</sup></u> ---	<u>Bales<sup>1</sup></u> 1,237
Belgium-Luxembourg.....	---	683	678	1,041	449	604	6,650	1,937
China, Mainland.....	41,410	23,815	80,950	---	37,876	---	10,666	---
Czechoslovakia.....	1,006	2,117	1,251	5,149	---	355	---	584
France.....	2,343	3,921	3,641	10,642	1,184	4,798	363	12,257
Germany.....	942	4,143	662	2,186	---	301	1,392	5,695
Hong Kong.....	28,531	690	41,829	1,552	61,508	364	45,514	87
India.....	---	---	30,184	---	1,195	---	93,068	---
Italy.....	449	140	180	270	992	158	3,486	803
Japan.....	135,535	85,693	55,127	88,412	13,128	61,859	41,013	78,365
Netherlands.....	285	2,689	163	1,659	---	663	---	1,595
Poland.....	3,838	---	18,032	---	---	---	697	---
United Kingdom.....	8,676	7,078	7,877	6,928	786	4,461	3,508	7,895
United States.....	---	9,206	---	13,758	955	6,967	4,250	6,673
Other.....	13,655	9,905	2,996	1,378	1,881	171	910	2,772
Total.....	236,711	150,442	243,688	134,105	120,164	81,438	211,517	119,900

<sup>1</sup> Bales of 480 pounds.

Source: Derived from figures in Karachi Cotton Annual, and Weekly Cotton Circulars.

Table 11.--COTTON: Pakistan, export duty per bale by type and equivalent in U.S. cents per pound, 1947-62

Effective period	Upland	Desi	Comilla	Equivalent in U.S. currency		
				Upland	Desi	Comilla
	<u>Rupees</u>	<u>Rupees</u>	<u>Rupees</u>	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>
October 26, 1947 to January 22, 1948.....	20	20	20	1.5	1.5	1.5
January 23, 1948 to February 22, 1948.....	40	40	40	3.1	3.1	3.1
February 23, 1948 to October 5, 1949.....	60	60	60	4.6	4.6	4.6
October 6, 1949 to October 22, 1950.....	60	40	40	4.6	3.1	3.1
October 23, 1950 to November 23, 1950.....	180	180	180	13.8	13.8	13.8
November 24, 1950 to September 9, 1951.....	300	300	300	23.0	23.0	23.0
September 10, 1951 to September 10, 1952.....	100	100	100	7.7	7.7	7.7
September 11, 1952 to September 9, 1953.....	90	0	0	6.9	0	0
September 10, 1953 to August 22, 1955.....	90	60	60	6.9	4.6	4.6
August 23, 1955 to August 21, 1956.....	135	60	60	7.2	3.2	3.2
August 22, 1956 to August 29, 1958.....	115	80	80	6.2	4.3	4.3
August 30, 1958 to July 24, 1959.....	115	<sup>1</sup> 50	<sup>1</sup> 50	6.2	2.7	2.7
July 25, 1959 to August 25, 1960.....	75	40	40	4.0	2.1	2.1
August 26, 1960 to August 12, 1961.....	75	40	20	4.0	2.1	1.1
August 13, 1961 to November 23, 1962.....	75	25	0	4.0	1.3	0
November 24, 1962 to date.....	25	25	0	1.3	1.3	0

<sup>1</sup> A rate of 80 rupees was applicable to old crop cotton.

Source: Compiled from official sources.

spending foreign exchange, within limitations for usual marketings based on historical import data. Generally, the U. S. cotton imported into Pakistan has been restricted to extra-long staple cotton except for two programs that included some Upland cotton with a staple length of 1-1/16 inches or more. No extra-long staple is produced in Pakistan, and production of longer stapled Upland is negligible. An import duty equal to 2.73 cents per pound is levied on imported cotton. The duty apparently is for revenue purposes, since imported cotton is not competitive with domestic, because the export duty, plus the waiver of the sales tax on local cotton, permits mills to buy domestically-produced cotton at prices below world levels. Further, cotton imports are strictly controlled by the government through an import license system.

Foreign exchange is needed to implement economic development plans so Pakistan has not permitted cotton imports other than under P.L. 480 in recent years. Current expansion plans of the textile industry, if achieved will probably result in a continuing need to import some extra-long staple cotton and quite possibly some Upland, as well, for a period of several years. In the Second Plan, increased cotton exports rather than cotton imports are envisioned. In view of Pakistan's tight foreign exchange situation, it is doubtful that the government will allow foreign exchange to be used to import cotton. Pakistan would prefer to import cotton under Title I of P.L. 480 so that (1) foreign exchange would not be needed, and (2) a part of the funds from such purchases could be used for local economic development.

Pakistani officials are giving some thought to the possibility of linking raw cotton imports to cotton textile exports if, in future years, local cotton supplies fall short of domestic needs. Such a program would be relatively unattractive under present textile industry conditions, but as textile capacity expands and the domestic market becomes more competitive, textile exports linked to cotton imports may become more desirable financially to the textile industry. In this event, the chance for such a scheme to succeed would improve considerably, assuming, of course, that the efficiency of the textile industry is such that Pakistan can compete effectively in textile import markets.

## THE GINNING INDUSTRY

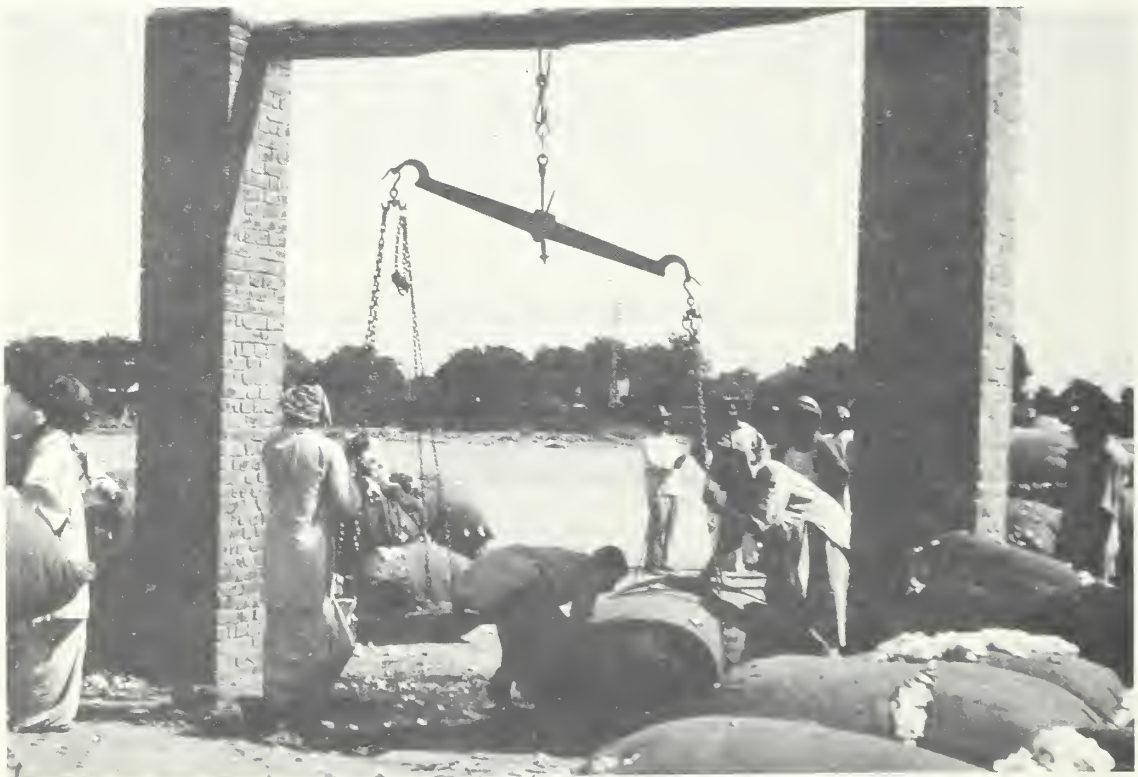
There are 550 cotton ginning establishments in West Pakistan, many of which began operations long before independence in 1947. The Punjab has 474 units, and Sind, 76. Theoretically, ginning capacity is more than adequate for the crop now harvested. By area, installed equipment in West Pakistan at the end of 1961 was as follows:

	<u>Punjab</u>	<u>Sind</u>
Number of gins	474	76
Number of presses	170	34
Number of single roller stands	7,523	1,226
Number of double roller stands	772	787
Number of saw stands	279	90

Source: Karachi Cotton Association, Karachi Cotton Annual No. 23.



Above: Camels transporting seed cotton to gin. Ginning capacity is adequate for present crops.  
Below: Weighing cotton at gin yard. Facilities were not updated under old "allottee" system.







Seed cotton stored in gin yard. The general practice is to gin without first classing cotton.

From 1 to 8 saw stands per gin are installed in the 102 gins in the former Punjab, and the 32 gins in the former Sind, and almost all this saw equipment has been installed since partition. Whereas most of the saw gin equipment is of U. S. origin, roller gin equipment is British-made. A large share of the presses were made in Germany.

Few gins have any machinery for cleaning cotton. An Export-Import Bank Loan from the United States for 6.4 million dollars, was made in 1960 to improve and modernize the ginning and cottonseed crushing industry. About one-third of the loan was allocated for modernizing existing gins, mainly for machinery for cleaning of seed cotton prior to ginning. All gins with 40 or more single rollers are required to install pre-cleaning equipment. Most of this equipment reportedly is to be installed in 1963.

Cotton ginning in Pakistan generally leaves something to be desired, but possibly the quality of ginning will improve. At the time of partition in 1947, the Government took over existing gins left behind by Hindus moving to India. These gins were operated under the "allottee" system, whereby an immigrant from India was allotted use of a government-owned gin, usually on an annual basis, to compensate for property left behind in India. Under this system, ginning equipment was allowed to deteriorate because allottees could never be certain that they would operate the gins the following year. In 1960, the Government began to sell its gins to private investors, and the sales were completed in 1962. There will now be at least some incentive to maintain and to improve ginning facilities.

Cotton ginners, especially the large-scale operators, have, in addition to ginning, an important function in marketing Pakistani cotton. They have title to cotton during this marketing step and must perform the first classing of cotton. A few gin operators do a fairly good job of grading seed cotton before ginning, and thus are able to assemble lots, generally even-running, of baled lint cotton. But even this initial grading is not reflected back to producers in the form of premiums for quality cotton. The general practice

is to gin seed cotton without regard to quality. Failure to begin the important marketing function of assembling the raw material into lots of somewhat uniform quality tends to reduce the quality of all Pakistani cotton.

Ginners have complained over the years that cotton production was not increasing and that seed cotton delivered to gins was of poor quality. Generally they have done little to promote increased production or to encourage quality improvement except to outline steps that should be taken by the government. In part, this lack of initiative reflects the large number of small-scale ginning units, particularly in the Punjab.

Table 12.--GINNING EQUIPMENT: Size of installations by area, 1961

Maximum equipment	Punjab	Sind	Total
Four or fewer single rollers.....	204	0	204
5 to 15 single rollers.....	50	1	51
4 or fewer double rollers.....	2	0	2
5 to 15 double rollers.....	8	1	9
Larger than above (including all saw gins).....	210	74	284
Total.....	474	76	550

Source: Karachi Cotton Association.

The size of these units precludes performance of many services that can be performed effectively by larger units. In Sind, gins are larger and could, (though they do not) play an important role in both quality improvement and increased cotton production.

## THE TEXTILE INDUSTRY

The textile industry of Pakistan has grown rapidly since partition in August 1947. Practically all of the large textile industry in the undivided subcontinent was in India; Pakistan had only 177,000 spindles and 4,800 power looms. However, in the early years of independence Pakistan had a large share of the Upland-type cotton acreage, a largely unmet demand for textiles, and a more-than-adequate supply of labor, so the development of a textile industry was attractive, not only from an investor's viewpoint, but also as a national goal. By 1960, Pakistan had 1.9 million cotton spindles and 29,000 looms. The rapid expansion of cotton textile capacity resulted in (1) a sharp drop in textile imports to negligible quantities, (2) a sizable increase in per capita use of cotton, (3) exports of cotton manufacturers, and (4) a sharp drop in raw cotton exports.

In 1950, imported textiles supplied over three-fourths of the three pounds of cotton consumed per person. By 1960, textile imports had dropped to a

Table 13.--COTTON YARN AND MANUFACTURES: Imports into Pakistan, value, 1950-62

Year	Cotton twist and yarn		Cotton piecegoods	
	Million rupees	Million dollars	Million rupees	Million dollars
1950.....	149.5	44.8	278.4	83.5
1951.....	215.6	64.7	333.3	100.0
1952.....	195.6	58.7	273.6	82.1
1953.....	48.5	14.6	14.3	4.3
1954.....	48.4	14.5	29.7	8.9
1955.....	10.6	2.2	26.1	5.5
1956.....	13.0	2.7	51.3	10.8
1957.....	9.5	2.0	8.6	1.7
1958.....	4.3	.9	1.4	.3
1959.....	2.6	.5	1.7	.4
1960.....	18.4	3.9	3.4	.7
1961.....	16.6	3.5	4.1	.9
1962.....	12.9	2.7	2.2	.5

Source: Pakistan Central Statistical Office, Statistical Bulletin.

very low level, but per capita cotton usage had climbed to almost five pounds and textiles valued at 38 million dollars were exported. There is little doubt that had there been no development of local textile capacity, foreign exchange would not have been available to import a volume of textiles necessary to achieve a consumption level of 5 pounds per capita.

## Textiles and the First Five-Year Plan

The First Five-Year Plan for economic development, covering the period 1955-56 through 1959-60, originally set forth a goal of 2.2 million spindles and 38,700 looms by mid-1960. When the Plan was prepared in 1954-55, there were 1.3 million spindles and 18,000 looms in place. By the time the Plan finally was officially approved in 1958, the goals were reduced to 1.9 million spindles and 30,000 looms. These goals were, in fact, almost a reality at the time the plan was approved.

A target of 14 yards of cloth per person annually was the basis for the original goals of the First Plan, but the revised goals were to supply only 12 yards per person in 1960. The revision in goals was necessary because a severe drop in total foreign exchange earnings in the late 1950's precluded further purchases of textile machinery. Also, there was a change in governments in 1958, and the new government not only curtailed imports of textile machinery, but also imposed ceiling prices on textiles as a means of controlling profits. Also, planners based estimates on a projected population growth rate of 1.5 percent annually, but the actual rate was 2.2 percent.



Table 14.--TEXTILE INDUSTRY:<sup>1</sup> Pakistan, capacity, installed and in operation, and textile production, 1948-61

Year	Installed		Operating		Production	
	Spindles	Looms	Spindles	Looms	Yarn	Cloth
	Thousands	Thousands	Thousands	Thousands	Million pounds	Million pounds
1948.....	177	5	177	5	29.7	88.1
1949.....	236	5	236	5	33.9	92.4
1950.....	290	5	290	5	43.1	106.3
1951.....	333	6	333	6	53.4	127.7
1952.....	630	9	410	7	69.7	174.2
1953.....	793	12	724	10	120.6	251.6
1954.....	1,316	18	1,113	16	192.4	345.2
1955.....	1,683	26	1,561	22	274.5	453.2
1956.....	1,801	27	1,665	25	300.7	500.4
1957.....	1,875	28	1,737	25	315.9	527.0
1958.....	1,889	29	1,768	27	345.1	576.2
1959.....	1,928	30	1,817	28	392.1	618.3
1960.....	1,941	30	1,844	29	408.7	628.8
1961.....	1,998	30	1,893	29	412.6	699.0

<sup>1</sup> Excludes handloom industry equipment and production.

Source: Pakistan Central Statistical Office, Statistical Bulletin.

## Textiles and the Second Five-Year Plan

The Second Five-Year Plan for economic development began in mid-1960 and runs until mid-1965. Cotton textile production is given an important role in the industrial section of the Plan. A goal of 2.5 million cotton spindles was outlined as necessary to supply the planned 40,000 looms and provide a 35 percent of surplus of yarn for the handloom industry and for export. Planners estimated that this capacity would provide 14.5 yards of cloth per person in 1965. Price controls were removed in January 1961, and shortly thereafter, in keeping with the program of the Second Five-Year Plan, orders for large quantities of textile machinery were made.

When it became evident that the goals for textile machinery would be reached easily before 1965, targets were raised to 2.7 million spindles and 43,000 looms. By late 1962, orders for textile machinery assured attainment of the 2.7-million-spindle goal, and official and industrial leaders were predicting a possible 3 million spindles and 60,000 looms by the end of the Plan period. The exceptional rate of growth of the textile industry reflects



high returns that have been possible on investments in textile manufacturing. There are almost 100 million people in Pakistan, and even though per capita income is low, the sheer weight of numbers makes the country a large textile market.

Textile profits have been exceptionally good even though there are few spare parts or replacement parts made in Pakistan. Since parts must be imported, maintenance and repairs are costly and slow. Not an unusual sight is an entire spinning frame standing idle because of a lack of parts.

The government has played no small part in encouraging potential investors in textile manufacturing. Textile imports have been restricted since 1953, so competition from imported textiles has been kept at a minimum. Along with many other industrial enterprises, textile producers are exempt from most taxes applicable to new firms for the first five years of operation. Raw cotton has been available to local consumers at below export prices through a sales tax on exported cotton and a varying export tax on cotton. Credit arrangements with foreign governments for purchasing textile machinery have been made by the Government. Textile exporters are entitled to retain a part of the foreign exchange that they earn. This program is set up to encourage exports of a number of commodities and products.

The bonus voucher scheme entitles textile exporters to retain vouchers for 10 percent of the foreign exchange earned through shipping textiles, a privilege not granted to raw cotton exporters. These vouchers can be used to import a large number of otherwise prohibited items.

The vouchers also can be sold in the money exchange market where they usually get a premium ranging from 125 to 175 percent, depending upon the demand for foreign exchange by individuals or firms not earning bonus vouchers. Thus the bonus voucher scheme is, in effect, a sizable subsidy to the textile industry.

In addition to textiles, cotton wastes are eligible for export bonus vouchers, and practically all card strips are exported.

## Other Aspects of the Textile Industry

Most of the textile machinery is relatively new. Imports of used machinery generally have been prohibited, and a sizable share of the equipment has been installed in the last twelve years. Much of the equipment is of Japanese manufacture. This resulted from low-interest loans that Japan has made over the years, the low cost of Japanese machinery, and the willingness of Japan to supply numerous technicians to begin new-machinery operations.

Pakistan's textile industry is divided officially into two groups, the large, well-organized mills and the handloom industry. The handloom industry, though, includes numerous small shops with one to five power looms, so the term "handloom industry" is actually a misnomer. Almost all cotton yarn is produced in the large-scale establishments, but the handloom industry accounts for almost half of the annual cloth outturn.

Small-scale weavers and handloom operators create full or part-time employment for several hundred thousand people, and produce 400 to 500 million yards of cloth annually. Because of the important position these groups hold in the economic structure of the country, the Government has tried to maintain added protection for them. Production of several qualities of cloth are reserved for handlooms except where produced for export or for government order. Also, sales taxes and excise taxes, which are actually transaction taxes paid by the mills, applicable to cloth, are waived for handloom production and for shops with four or fewer power looms. Other mills pay a sales tax of 10 percent on coarse cloth and 12.5 percent on all other cloth. They also pay excise tax of 6 paise (0.12 cents) per square yard on coarse cloth, 2 annas (2.8 cents) on medium cloth, and 3 annas (4.2 cents) on fine and superfine cloth. The Textile Commission classified cloth according to yarn count used to weave the cloth, as follows:

- Coarse cloth - woven from yarn counts up through 16's.
- Medium cloth - woven from yarn counts 17's through 34's.
- Fine cloth - woven from yarn counts 35's through 47's.
- Superfine cloth - woven from yarn counts 48's and above.

The sales tax on cotton yarn is 6.25 percent on counts of 20s and below and 12.5 percent on other yarn. No excise tax is applicable to yarns. The lower sales tax rate on coarse yarns tends to favor a large segment of the handloom industry that weaves coarse cloth for village consumption.

The organized industrial sector of the textile industry consists of more than 100 plants. Although most of them both spin and weave cotton, about 20 plants have only spinning facilities, and three small plants weave cloth only from purchased yarn. About 30 percent of the textile capacity is located in and around Karachi, 50 percent is scattered throughout other areas of West Pakistan, and 20 percent is in East Pakistan.

The Central Government has tried to encourage expansion of cotton textile production in East Pakistan. Economics of production would seem to dictate that cotton textiles be made in West Pakistan, where the raw cotton is produced, rather than shipment of raw cotton to the East Wing for spinning and weaving. East Pakistan earns a sizable share of the country's foreign exchange with jute exports. Hence, the people in the East Wing feel that they should share in the industrialization of the country, and since a large part of the effort to expand industry has been in textiles, they feel that they, too, should have a textile industry. West Pakistan, on the other hand, would like to increase its export earnings by shipping more textiles.

The Second Plan outlined all of the increase in textile capacity for the East Wing. However, private companies have preferred to expand textile production in the West Wing, apparently for economic reasons. East Pakistan does have around 20 percent of the country's cotton textile capacity, and buys sizable quantities of cotton from West Pakistan each year.

Production of cotton yarn has increased each year since 1948, and consumption of domestically-produced yarn has increased each year since 1948 with the exception of 1959, when the 20 percent export bonus on yarn caused record exports and thereby reduced domestic availabilities. In fact,

Table 15.--COTTON YARN: Pakistan, production and consumption, and exports of domestic production, annual 1948-62

Year	Production	Large-mill consumption	Surplus <sup>1</sup>	Exports
	Million pounds	Million pounds	Million pounds	Million pounds
1948.....	29.7	23.5	6.2	0
1949.....	33.9	24.6	9.3	0
1950.....	43.1	28.2	14.9	0
1951.....	53.4	34.0	19.4	0
1952.....	69.7	47.3	22.4	0
1953.....	120.6	67.1	53.5	0
1954.....	192.4	92.1	100.3	( <sup>2</sup> )
1955.....	274.5	120.8	153.7	4.1
1956.....	300.7	133.4	167.3	27.7
1957.....	315.9	142.2	173.7	40.6
1958.....	345.1	156.4	188.7	6.8
1959.....	392.1	160.2	231.9	82.5
1960.....	408.7	171.2	237.5	79.6
1961.....	412.6	190.1	222.5	14.2
1962.....	432.2	201.0	231.2	5.1

<sup>1</sup> Domestically-produced yarn available to the handloom industry and for export.

<sup>2</sup> Less than 50,000 pounds.

Source: Compiled from official sources.

Table 16.--COTTON FABRIC: Production<sup>1</sup> in Pakistan by kind, 1948-62

Year	Fine	Medium	Coarse	Total
	1,000 yards	1,000 yards	1,000 yards	1,000 yards
1948.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	88,059
1949.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	92,445
1950.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	106,295
1951.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	127,666
1952.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	174,160
1953.....	24,771	191,093	35,712	251,576
1954.....	24,447	289,112	31,688	345,247
1955.....	28,629	356,927	67,681	453,237
1956.....	45,375	330,299	124,710	500,384
1957.....	56,233	246,924	223,891	527,048
1958.....	59,397	250,145	266,679	576,225
1959.....	51,278	328,098	239,158	618,534
1960.....	57,732	361,253	209,810	628,795
1961.....	83,985	330,176	284,874	699,035
1962.....	63,450	370,852	290,932	725,234

<sup>1</sup> Excludes handloom production estimated at 400 to 500 million yards annually in recent years.

<sup>2</sup> Breakdown not available.

Source: Pakistan Central Statistical Office, Statistical Bulletin.

Table 17.--COTTON YARN: Exports from Pakistan by country of destination, 1955-62

Country of destination	1955	1956	1957	1958	1959	1960	1961	1962
Afghanistan.....	1,000 pounds ( <sup>1</sup> )	1,000 pounds ( <sup>1</sup> )	1,000 pounds ( <sup>1</sup> )	1,000 pounds 346	1,000 pounds 820	1,000 pounds 533	1,000 pounds 490	1,000 pounds ---
British East Africa.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	580	( <sup>1</sup> )	109	---	---
Burma.....	1,421 ( <sup>1</sup> )	160 ( <sup>1</sup> )	5,966 ( <sup>1</sup> )	2,720	5,046	14,538	1,506	3,089
Cambodia.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	60	77	422	---	---
Hong Kong.....	2,353 ( <sup>1</sup> )	19,993 ( <sup>1</sup> )	27,899 ( <sup>1</sup> )	1,508	65,473	47,182	9,244	1,081
Malagasy Republic.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	192	532	651	92	---
Malaya and Singapore.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1,837	1,094	---	---
Portuguese India.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	203	72	66	---	---
Singapore.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	611	120	---
United Kingdom.....	135	2,706	2,812	339	1,238	1,912	581	393
Union of South Africa.....	30	696	614	411	911	873	458	223
Thailand.....	29	2,544 ( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	837	366	154	---
Vietnam.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	137	3,425	6,578	1,189	---
Other.....	157	1,575	3,173	268	2,260	4,678	402	292
Total.....	4,125	27,674	40,464	6,764	82,528	79,613	14,236	5,078

<sup>1</sup> If any, included in other.

Source: Compiled from official sources.



Table 18.--COTTON FABRICS: Exports from Pakistan by country of destination, 1955-62

Country of destination	1955	1956	1957	1958 <sup>1</sup>	1959 <sup>2</sup>	1960	1961	1962
	1,000 yards	1,000 yards	1,000 yards	1,000 yards	1,000 yards	1,000 yards	1,000 yards	1,000 yards
Aden and Dependencies.....	---	1,320 ( <sup>3</sup> )	840 ( <sup>3</sup> )	---	991 ( <sup>1</sup> )	6,249	6,672	5,860 ( <sup>3</sup> )
Afghanistan.....	---	---	---	---	---	1,334	1,279	36
Australia.....	---	920	560	---	90	470	272	( <sup>3</sup> )
Belgium-Luxembourg.....	---	1,840	440	---	( <sup>1</sup> )	1,097	133	885
British East Africa.....	---	1,280	680	---	762	1,180	1,282	55
Burma.....	---	( <sup>3</sup> )	( <sup>3</sup> )	---	( <sup>1</sup> )	3,983	4,260	563
Canada.....	---	( <sup>3</sup> )	( <sup>3</sup> )	---	( <sup>1</sup> )	607	430	411
Ceylon.....	---	( <sup>3</sup> )	( <sup>3</sup> )	---	( <sup>1</sup> )	829	950	52
Hong Kong.....	---	( <sup>3</sup> )	( <sup>3</sup> )	---	927	1,872	21	2,034
Saudi Arabia.....	---	720	80	---	( <sup>3</sup> )	1,553	2,289	5,388
Sudan.....	---	880	160	---	997	1,681	4,544	22,148
United Kingdom.....	40	7,520	4,800	---	20,277	39,291	20,733	12,025
United States.....	40	40	( <sup>3</sup> )	---	9,563	11,514	7,581	3,612
Other.....	---	2,440	2,720	---	( <sup>1</sup> )	4,338	3,297	63,078
Total.....	80	16,960	10,280	4,080	4 42,000	75,998	53,743	

<sup>1</sup> Country information not available.

<sup>2</sup> Country information does not include April, May and June.

<sup>3</sup> If any, included in other.

<sup>4</sup> Total year 1959. Complete country breakdown not available.

Source: Compiled from official sources.

the incentive to export was so great that the domestic handloom industry, which depends on yarn from large-scale spinners, found operations difficult. The yarn shortage prompted the Government to reduce the export bonus from 20 to 10 percent in January 1960 and to remove yarn from the bonus voucher scheme in January 1961, concurrent with removal of price controls on yarn and cloth. A 10 percent bonus voucher entitlement was again put back on yarn exports in August 1962.

Cotton yarn production by large spinners in 1961 was 413 million pounds, up only slightly from the 409-million-pound output in 1960 and 5 percent above the 392 million pounds produced in 1959. Production in 1950-54 averaged only 96 million pounds annually, but in 1955-59 production averaged 325 million pounds annually. The relative stability of yarn production in recent years reflects the sharp slowdown in textile capacity expansion after 1957. The current expansion in textile capacity should result in a fairly sharp rise in yarn production for the next few years.

Supplies of yarn produced in excess of consumption by the large mills was 223 million pounds in 1961, down 15 million pounds from 1960 and 9 million pounds below 1959. However, availabilities of yarn to the handloom industry rose sharply in 1961, in spite of the drop in surplus yarn production. These added supplies reflect the sharp drop in yarn exports. Yarn consumption by the large organized mills has increased each year since 1948, but it currently accounts for only about half of the yarn produced. Spinning facilities have increased at a faster rate than weaving facilities in large mills, but if the predicted capacity of 3 million spindles and 60,000 looms is reached (although this appears unlikely), this trend will be reversed. Currently there are about 65 spindles per loom, but 60,000 looms with 3 million spindles would reduce this ratio to 50 spindles per loom. The shrinking ratio of spindles to looms reflects the trend toward vertical integration of the industry. Increasingly, mills that previously spun yarns for sale are installing weaving and finishing equipment. This integration will tend to reduce costs of production, but may cause hardship in the handloom industry.

Cotton cloth production by the large mills totaled 700 million yards in 1961, and production by the handloom industry probably pushed the total to around 1,200 million yards, or about 12 yards per person. In order to meet the expressed goal of 14.5 yards per person annually by 1965 and to export 100 million yards of cloth, an increase of 30 percent in production will be necessary. If the predicted 60,000 looms are installed by 1965, if production from the additional looms is equal to production of the 30,000 looms in place in 1961, and if production by the handloom industry remains approximately the same, cloth production in 1965 will be about 60 percent above 1961 and equivalent to about 19 yards per capita. The estimates for spindlage and looms are highly optimistic, but they do indicate a willingness to invest in the textile industry, and point to a sizable increase in capacity over the next few years.

Pakistan's textile industry has reached a critical point in expanded productive capacity. Textile producers have been assured a good domestic market for practically all they could produce, and this market was protected from outside competition. Also, supplies of domestically produced cotton

were adequate to meet most local needs. Machinery currently being installed, or on order, will increase capacity to such a point that domestic demand will be more easily met, and for the first time measurable competition can be expected in selling textiles. Further, cotton production is not expected to increase fast enough to maintain assured supplies that have been readily available in the past. Production of Upland cotton in the last five years has averaged about 1.2 million bales, but judging from past performance by the spinning industry, more than 1.4 million bales will be needed to meet the needs of the already assured 35 percent increase in spindlage. To meet the demand for cotton of a 3-million-spindle industry would require about 1.6 million bales. Pakistan could produce 1.4 million bales of Upland cotton in 1965, but it is unlikely that 1.6 million bales will be produced.

A few Pakistani officials have expressed concern over the rapid expansion of the textile industry; others have indicated that they believe the demand for textiles to be much greater, even up to twice as large as present purchases. Profits from textile investments would indicate that a larger potential market exists, but it is doubtful that demand is as large as potential production, especially at present per capita income rates. Quite possibly the handloom industry will decline as more textiles become available from the organized mill sector. Too, exports of textiles, even a return to the record 1960 rate, offer some hope as an outlet for a large industry. Regardless of the eventual results of an expanded industry, numerous readjustments will be necessary, and these readjustments will require governmental and industrial cooperation for successful accomplishment.







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